IQFISH FAST HYBRIDIZATION BUFFER

High-quality, half-day sample-to-result for FISH tests

- Fast results
- High-quality signal
- Compatible with FFPE, blood, and bone marrow samples.

Agilent Technologies
How IQFISH buffer enables fast hybridization

Standard formamide based FISH hybridization buffer lowers melting temperature by attacking hydrogen bonds and interfering DNA base pairing. The interference slows down base pairing between FISH probe and specimen DNA. IQFISH buffer destabilizes DNA helix by diminishing hydrophobic stacking of bases. Minimized base pairing interference enables fast binding between FISH probe and specimen DNA. (Figure 1)

Fast results.
IQFISH enables 1-2 hour hybridization for quick sample-to-reporting for FISH testing

IQFISH Fast Hybridization Buffer’s 1-2 hour hybridization enables a half day sample-to-result workflow. This workflow offers operational excellence, great average turnaround time, same day repeat testing, and Friday testing without weekend staffing. (Figure 2)

Figure 1. Minimized base pairing interference enables fast binding between FISH probe and specimen DNA to enable 1-2 hour hybridization.

Figure 2. Comparison between formamide and IQFISH buffer based workflows.
IQFISH hybridization enables visible signal instantly

As shown in Figure 3 (left) IQFISH hybridization enables visible signal instantly. Shown is a Her2/CEN-17 probe on FFPE breast carcinoma tissue. Hybridization was stopped by stringent wash buffer, 2 minutes and 15 minutes after co-denaturation.

Figure 3. Comparison of formamide-based and IQFISH buffers. A Her2/CEN-17 probe on FFPE breast carcinoma tissue 2 minutes and 15 minutes hybridization after co-denaturation. Samples visualized on an epi-fluorescent microscope.

High-quality signal

IQFISH Fast Hybridization Buffer enables fast hybridization with minimal loss in signal quality.

Optimal signal strength is reached after 2-hour hybridization. Figure 4A and B (left) shows 1.5-hour hybridization with IQFISH Fast Hybridization Buffer on FFPE lung adenocarcinoma, using an ALK and RET break-apart FISH probes, followed by visualization on an epi-fluorescent microscope.

Figure 4A and 4B. 1.5 hour hybridization with IQFISH Fast Hybridization Buffer on FFPE lung adenocarcinoma, using an ALK and RET break-apart FISH probes.
Now compatible with non-FFPE specimens

IQFISH Fast Hybridization Buffer works with FFPE, blood and bone marrow specimens, delivering fast hybridization and high quality results. Figure 5 (right) is a PML-RARA dual fusion probe hybridized to cultured bone marrow cells for 1.5 hours using IQFISH Fast Hybridization Buffer.

Figure 5. A PML-RARA dual fusion probe hybridized to bone marrow cells for 1.5 hours using IQFISH Fast Hybridization Buffer.

Ordering information

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<thead>
<tr>
<th>Part Number</th>
<th>Product Description</th>
<th>Volume</th>
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<tbody>
<tr>
<td>G9415A</td>
<td>IQFISH Fast Hybridization Buffer 200</td>
<td>200 µL/vial (20 tests)</td>
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<td>G9416A</td>
<td>IQFISH Fast Hybridization Buffer 200x6</td>
<td>6x200 µL/vial; 6 vials</td>
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